

COPY**PATENT****REMARKS**

Claims 1-43 are pending in the present application. Claims 5, 8, 12, 26 and 33 have been rejected under 35 U.S.C. § 112. Claims 1-42 have been rejected under 35 U.S.C. § 102. Claims 5, 8-9, 12, 23, 26, 30 and 33 have been amended. In addition, the term "the step of" has been removed from various claims for grammatical consistency, and not to narrow the scope of the claims. Claim 25 has been canceled. Claim 43 has been added.

Examiner Interview

On January 26, 2004, an Examiner interview was conducted with Examiner Allen Quillen regarding the present patent application. During the interview, I discussed with Examiner Quillen that the relied-upon art for rejection, Chiraz, did not disclose any of the recited claims. Discussions were specifically held to claim 1. With respect to claim 1, I indicated that Quillen did not disclose providing one of two separate virtual display images to a common display controller for display. Instead, Chiraz discloses specific images always being displayed to different display devices. Examiner Quillen stated that column 47, lines 10-21, and FIG. 23B disclose a select feature to permit the display of one image on the screen at a time. However, it was indicated in response that the cited text discloses enabling one display controller of a plurality of display controllers on a PCI bus, and not selecting one of a plurality of virtual displays (frame buffers) for display on one monitor. Examiner Quillen indicated that his first search was not specifically limited to selecting one of two virtual displays for display on a display device. Examiner Quillen further indicated that were I to file a response after final, that I could expect an Advisory Action to be issued. Examiner Quillen made it clear that the patent examination process did not leave significant time for Examiners to have a complete understanding of the invention and related technology, and that the time we spent discussing the technology provided him with a better understanding of what to search for in the future. When I discussed appealing the rejection, Examiner Quillen indicated from his perspective he would prefer that an RCE be filed so that he could treat the examination as though it were a new examination and spend additional time on the search without being penalized by the examining system. I indicated that I would discuss the option of an RCE with my client.

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A Request for Continued Examination has been filed with this Response. In addition, for the convenience of the Examiner, the following discussion is provided to facilitate a better understanding of a specific embodiment of the disclosed claims.

In one embodiment, the multi-display driver 124 of the present disclosure is a software driver capable of supporting multiple displays. For example, the multi-display driver 124 can provide images related a first virtual display to one portion of video memory, and images related to a second virtual display to a second portion of memory. (Note: Display driver 124 is a software driver and does not physically provide signals to a monitor.) In the known prior art, these two stored images would be displayed on two displays by two separate display controllers. However, instead of having multiple display controllers to provide the images to multiple displays, the present invention allows a user to select one of the virtual displays to be provided to a single display, while the other virtual display remains stored in memory. As discussed in previous responses, and below, this is not disclosed by Chiraz.

35 U.S.C. § 112 Rejections

Claims 5, 8, 12, 26 and 33 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Office asserts that the terms "hot-keys" and "desktop" are generic terms with multiple contextual meanings. The rejection under § 112 is traversed. However, in the interest of furthering prosecution, claims 5, 12, 26 and 33 have been amended. The amendments are not believed to limit the scope of the claims. Claim 8 has been amended to further clarify the term "desktop".

Note that Claim 8 has been amended to recite an "operating system desktop." The specification describes the system desktop as the area in which a user can open and move application windows. (Specification, page 5, lines 19-20) The Applicant asserts that the term "operating system desktop," as amended, is a term such that those skilled in the art would understand what is claimed when the claim is read in light of the specification. For this reason, withdrawal of the rejection of Claim 8 is respectfully requested.

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35 U.S.C. § 102 Rejections

Claims 1-42 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Chiraz (U.S. Pat. No. 6,411,302).

Claim 1 recites a method including storing a first set of display data in a first portion of a frame buffer, wherein the first set of display data is associated with a first virtual display; storing a second set of display data in a second portion of the frame buffer, wherein the second set of display data is associated with a second virtual display; selecting one of the first virtual display or the second virtual display to be presented by a display device; when the first virtual display is selected, providing data from the first portion of the frame buffer to a display controller for presentation on the display device; and when the second virtual display is selected, providing data from the second portion of the frame buffer to the display controller for presentation on the display device. [Emphasis added.]

Chiraz discloses a method and apparatus for addressing multiple frame buffers as a single high-resolution logical frame buffer. Chiraz discloses that storing high-resolution image data in the multiple frame buffers enables the high-resolution image data to be displayed utilizing multiple standard resolution video outputs. Thus, Chiraz distributes image data across multiple standard display devices for the purpose of creating a display that is larger in size. (See Chiraz, Col. 5, lines 29-55). In contrast, the Applicant's disclose a method of initializing a multiple display configuration in a system with a display device, not multiple display devices.

Chiraz does not disclose when a first virtual display is selected, providing data from a first portion of a frame buffer to a display controller for presentation on the display device; and when the second virtual display is selected, providing data from the second portion of the frame buffer to the display controller for presentation on the display device as required by Claim 1. In contrast, Chiraz distributes image data across multiple display devices.

In the Final Office Action, the Examiner further cites Chiraz at Column 47, lines 1-29; Column 21, line 39 through Column 22, line 9, in support of the rejection of claim 1. However, Column 47, lines 1-29, specifically describes using multiple display controllers (see column 47, line 10), not one as recited in the claim, and Columns 21-22 describe two displays (see column

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21, lines 45-51). Each of the multiple display controllers of Chiraz is associated with a specific portion of memory used for a specific virtual display and not multiple as claimed.

Because Chiraz neither discloses nor suggests a method as recited in Claim 1, Claim 1 is necessarily not anticipated and non-obvious over Chiraz. For this reason, withdrawal of the rejection of Claim 1 under § 102 is requested. In addition, withdrawal of the rejections of Claims 2-8, which depend from Claim 1, is requested because dependent claims contain the limitations of their base claims, and are allowable for at least this reason.

Amended Claim 9 recites a method including determining a number of virtual displays in a plurality of virtual displays to be supported; partitioning a frame buffer into a plurality of frame buffer portions, wherein the plurality of frame buffer portions include a first frame buffer portion associated with a first virtual display of the plurality of virtual displays and a second frame buffer portion associated with a second virtual display of the plurality of virtual displays; reporting the number of virtual displays as a number of display devices; providing a first address associated with the first frame buffer portion, wherein the first address is reported as an address of a first frame buffer associated with a first display device; and providing a second address associated with the second frame buffer portion, wherein the second address is reported as an address of a second frame buffer associated with a second display device; wherein at any given time, only one of the number of virtual displays is to be displayed. [Emphasis added.]

Chiraz does not disclose displaying each of multiple displays on a same display device as required by Amended Claim 9. In contrast, Chiraz distributes image data across multiple display devices.

In the Final Office Action, the Examiner further cites Chiraz at Column 47, lines 9-20; Column 51, lines 1-3, 12-15; Column 11, lines 14-20; Column 21, lines 40-51; Column 29, lines 35-45; Column 49, lines 1, 39-40, in support of the rejection of claim 9. Each of these references describes multi-display systems, and not displaying one of the number of virtual displays at any given time as claimed.

Because Chiraz neither discloses nor suggests a method as recited in Claim 9, Claim 9 is necessarily not anticipated and non-obvious over Chiraz. For this reason, withdrawal of the

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rejection of Claim 9 is requested. In addition, withdrawal of the rejections of Claims 10-22, which depend from Claim 9, is requested because the dependent claims contain the limitations of their base claims, and are allowable for at least this reason.

Claim 23 has been amended to include elements from canceled Claim 25. Amended Claim 23 recites a system including a data processor having an input/output buffer; memory having an input/output buffer coupled to the input/output buffer of the data processor, said memory having a program of instructions including: a display driver to: report a multiple display configuration, wherein said multiple display configuration includes support for a plurality of virtual displays; partition a frame buffer into a plurality of frame buffer portions; assign a different virtual display of the plurality of virtual displays to each of the frame buffer portions of the plurality of frame buffer portions; a video controller coupled to the input/output buffer of the data processor, said video controller having: a frame buffer having the plurality of frame buffer portions, wherein each frame buffer portion of the plurality of frame buffer portions is to store display data associated with an assigned virtual display of the plurality of virtual displays; and a display controller to provide display data from a frame buffer portion of the plurality of frame buffer portions to a display device; wherein said display controller is to display a virtual display from the plurality of virtual displays dependent on an event trigger.

The Office states that Chiraz discloses selecting one of the first virtual display or the second virtual display includes identifying an event trigger at Col. 16, lines 35-48. However, at the cited location, Chiraz is describing the initialization of multiple display controllers. Initializing multiple display controllers is not the same as selecting from the plurality of virtual displays as recited in amended Claim 23. Further, Chiraz does not disclose an event trigger. A software routine stepping through the initialization of various registers is not an event trigger. Further, Chiraz discloses multiple display controllers, one for each of multiple displays. In contrast, the Applicant's disclose a method of initializing a multiple display configuration in a system with a single display device.

In the Final Office Action, the Examiner further cites Chiraz at Column 47, lines 9-20; Column 51, lines 1-3, 12-15; Column 11, lines 14-20; Column 21, lines 40-51; Column 29, lines 35-45; Column 49, lines 1, 39-40, in support of the rejection of claim 23. Each of these

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references describes multi-display systems, and not single controller system to display a selected virtual display from a plurality of virtual displays as claimed.

Because Chiraz neither discloses nor suggests a system as recited in amended Claim 23, Claim 23 is necessarily not anticipated and non-obvious over Chiraz. For this reason, withdrawal of the rejection of Claim 23 is requested, and allowance of independent Claim 23 is respectfully solicited. Claims 24-30 depend from allowable Claim 23 and are allowable for at least this reason.

Amended Claim 30 recites computer readable medium tangibly embodying a program of instructions, said program of instructions including instructions to: determine a number of virtual displays in a plurality of virtual displays to be supported; partition a frame buffer into a plurality of frame buffer portions, wherein the plurality of frame buffer portions include a first frame buffer portion associated with a first virtual display of the plurality of virtual displays and a second frame buffer portion associated with a second virtual display of the plurality of virtual displays; report the number of virtual displays as a number of display devices in a multiple display configuration; provide a first address associated with the first frame buffer portion, wherein the first address is reported as an address of a first frame buffer associated with a first display device of the multiple display configuration; provide a second address associated with the second frame buffer portion, wherein the second address is reported as an address of a second frame buffer associated with a second display device of the multiple display configuration, select one of the first virtual display or the second virtual display; wherein at any given time, only one of the number of virtual displays is to be displayed. [Emphasis added.]

Chiraz does not disclose displaying only one of the virtual displays at any given time as required by Amended Claim 30. In contrast, Chiraz distributes image data across multiple display devices.

Because Chiraz neither discloses nor suggests a computer readable medium as recited in Claim 30, Claim 30 is necessarily not anticipated and non-obvious over Chiraz. For this reason, withdrawal of the rejection of Claim 30 is requested, and allowance of independent Claim 30 is respectfully solicited. Claims 31-42 depend from allowable Claim 30 and are allowable for at least containing each limitation of their base Claim 30.

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Applicant(s) respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims.

Should the Examiner deem that any further action by the Applicant(s) would be desirable for placing this application in even better condition for issue, the Examiner is requested to issue a formal Notice of Allowance for all pending claims.

Respectfully submitted,

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Date

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